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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/716,231

11/18/2003

Hilmar Meier

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03/13/2006

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EXAMINER

SWERDLOW, DANIEL

ART UNIT

PAPER NUMBER

2646

DATE MAILED: 03/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/716,231	Applicant(s) MEIER ET AL.	
	Examiner Daniel Swerdlow	Art Unit 2646	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☒ Claim(s) 11,20 and 27 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to because Figure 1 requires descriptive legends for blocks that are identified only by reference characters. 37 CFR 1.84 (o) states: "Suitable descriptive legends ... may be required by the examiner where necessary for understanding of the drawing." Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

2. Claim 11 is objected to because of the following informalities: Claim 11 claims "an originally saved parameter set ... is being exchanged by a corresponding corrected parameter

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set". The construction "exchanging ... by" does not have a clear meaning. The construction --replacing ... by-- would denote the corrected parameter set is subsequently used instead of the originally saved parameter set. The construction --exchanging with-- would additionally denote that the originally saved parameter set is stored where the corrected parameter set had been before the exchange took place. Appropriate correction is required. To advance prosecution to the maximum degree possible, the claim is treated on the merits below based on the interpretation that the recitation is intended as "an originally saved parameter set ... is being replaced by a corresponding corrected parameter set".

3. Claim 20 is objected to because of the following informalities: Claim 20 recites "The hearing device of one of claims 16, wherein" at the start of the claim. This recitation should read -- The hearing device of claim 16, wherein--. Appropriate correction is required.

4. Claim 27 is objected to because of the following informalities: Claim 27, as presented, depends from Claim 25. It is clear from the claim that it is intended to depend from Claim 26. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 4, 7, 13, 14, 15, 21/15, 23/15, 26 and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Brillhart et al. (US Patent 5,303,306).

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7. Regarding Claim 1, Brillhart discloses a hearing aid (Fig. 1, reference 10; Fig. 3) with settings modified (i.e., adapted) for environmental conditions (i.e., a momentary acoustic surround situation) (column 3, lines 38-47) in which: volume settings (i.e., parameters) are changed (i.e., adjusted) (column 9, lines 6-10), these volume settings being part of a parameter set saved in a shift register of the hearing aid (Fig. 3, reference 114; column 7, lines 16-23) and associated with (i.e., belonging to) a sound environmental condition (i.e., identified momentary sound situation) (column 3, lines 38-46). Brillhart further discloses changing the volume settings using a remote control (Fig. 1, reference 20; Fig. 2; column 3, lines 46-47; column 9, lines 6-10) by the patient (i.e., in accordance with the hearing desire of the hearing device user).
8. Regarding Claim 4, Brillhart further discloses use of two buttons (Fig. 1, reference 24; column 4, lines 49-53) as a user input to adjust a parameter.
9. Regarding Claim 7, Brillhart further discloses the modified volume settings saved with other parameters in a shift register of the hearing aid (Fig. 3, reference 114; column 7, lines 16-23).
10. Regarding Claim 13, Brillhart further discloses selecting settings (i.e., parameters) as a function of the sound environment (i.e., momentary acoustic surround situation) (column 3, lines 59-63).
11. Regarding Claim 14, Brillhart further discloses selecting settings (i.e., changing parameter values) as a function of the sound environment (i.e., momentary acoustic surround situation) (column 3, lines 59-63).
12. Regarding Claim 15, Brillhart discloses a system comprising a hearing aid (Fig. 1, reference 10; Fig. 3) that corresponds to the hearing device claimed and a remote control that

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corresponds to the input device claimed (Fig. 1, reference 20; Fig. 2), the hearing aid comprising: automatic gain controller bandpass filters, range compressors and amplifier (Fig. 3, reference 64, 66, 80, 100, 102, 104; column 6, lines 47-63) that together correspond to the transmission unit claimed; a microphone (62) and a speaker (106) that corresponds to the receiver claimed.

Brillhart further discloses the transmission characteristics determined parameter set saved in a shift register memory of the hearing aid (Fig. 3, reference 114; column 7, lines 16-23) and selected and volume settings (i.e., parameters) are changed (i.e., adjusted) (column 9, lines 6-10) using the remote control that corresponds to the input device claimed (Fig. 1, reference 20; Fig. 2; column 3, lines 46-47; column 9, lines 6-10) by the patient (i.e., in accordance with the hearing desire of the hearing device user).

13. Regarding Claim 21, Brillhart further discloses the input unit designed for manual key input (Fig. 1, reference 20).

14. Regarding Claim 23, Brillhart further discloses transmission by the remote control that corresponds to the input device claimed using infrared radiation (i.e., wirelessly) (Fig. 2, reference 60, 15; column 4, lines 59-63).

15. Regarding Claim 26, Brillhart discloses a remote control that corresponds to the input device claimed (Fig. 1, reference 24; Fig. 2; column 4, lines 59-63). The limitations involving selection between better understanding and more pleasant hearing carry no patentable weight since it is not limiting on the structure of the input device what is done by the receiving device in response to transmitted commands.

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16. Regarding Claim 27, Brillhart further discloses transmission by the remote control that corresponds to the input device claimed using infrared radiation (i.e., wirelessly) (Fig. 2, reference 60, 15; column 4, lines 59-63).

***Claim Rejections - 35 USC § 103***

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. Claims 2, 3, 5, 8, 9, 12, 16, 17, 20, 21/16, 21/17, 21/20, 23/16, 23/17, 23/20 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brillhart in view of Mansgold et al. (US Patent 4,425,481).

19. Regarding Claim 2, as shown above apropos of Claim 1, Brillhart anticipates all elements except automatically identifying the momentary acoustic surround situation. Mansgold discloses a hearing aid (Fig. 2) which automatically selects the signal process best suited to the particular sound environment (i.e., identifies the momentary acoustic surround situation) (column 2, lines 15-18). One skilled in the art would have known that such an arrangement provides convenience to the user. It would have been obvious to one skilled in the art at the time of the invention to apply automatic selection as taught by Mansgold to the hearing aid taught by Brillhart for the purpose of realizing the aforesaid advantage.

20. Regarding Claim 3, Mansgold further discloses the signal processor that determines the particular sound environment that corresponds to the momentary acoustic surround situation is

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part of the device that corresponds to the hearing device claimed (Fig. 2, reference 4; column 2, line 68-column 3, line 5).

21. Regarding Claim 5, as shown above apropos of Claim 1, Brillhart anticipates all elements except adjusting parameters at the same time and commonly according to preset rules or rule sets. Mansgold discloses a hearing aid (Fig. 2) that automatically selects the signal process (i.e., adjusting parameters at the same time and commonly) best suited to the particular sound environment (column 2, lines 15-18) by returning a set of parameters according to a three bit characterization of the sound environment (i.e., according to preset rules) (column 4, lines 9-14, 25-32). One skilled in the art would have known that such an arrangement provides convenience to the user. It would have been obvious to one skilled in the art at the time of the invention to apply rule-based parameter adjustment as taught by Mansgold to the hearing aid taught by Brillhart for the purpose of realizing the aforesaid advantage.

22. Regarding Claims 8 and 9, Brillhart further discloses the modified volume settings saved with other parameters in a shift register of the hearing aid (Fig. 3, reference 114; column 7, lines 16-23).

23. Regarding Claim 12, Mansgold further discloses averaging the outputs of three subbands of the input signal (i.e., extracting features from the momentary acoustic surround situation) and determines the listening situation based on the averaged outputs (column 5, lines 14-21).

24. Regarding Claim 16, as shown above apropos of Claim 15, Brillhart anticipates all elements except a signal processing unit identifying the momentary acoustic surround situation. Mansgold discloses a hearing aid (Fig. 2) in which an averaging detector and logic unit combination that corresponds to the signal processing unit claimed (Fig. 2, reference 19, 21;



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column 5, lines 15-22) automatically selects the signal process best suited to the particular sound environment (i.e., identifies the momentary acoustic surround situation) (column 2, lines 15-18).

One skilled in the art would have known that such an arrangement provides convenience to the user. It would have been obvious to one skilled in the art at the time of the invention to apply automatic selection as taught by Mansgold to the hearing aid taught by Brillhart for the purpose of realizing the aforesaid advantage.

25. Regarding Claim 17, Brillhart further discloses use of two buttons (Fig. 1, reference 24; column 4, lines 49-53) as a user input to adjust a parameter. Therefore, Brillhart anticipates all elements except adjusting parameters at the same time and commonly according to preset rules or rule sets. Mansgold discloses a hearing aid (Fig. 2) that automatically selects the signal process (i.e., adjusting parameters at the same time and commonly) best suited to the particular sound environment (column 2, lines 15-18) by returning a set of parameters according to a three bit characterization of the sound environment (i.e., according to preset rules) (column 4, lines 9-14, 25-32). One skilled in the art would have known that such an arrangement provides convenience to the user. It would have been obvious to one skilled in the art at the time of the invention to apply rule-based parameter adjustment as taught by Mansgold to the hearing aid taught by Brillhart for the purpose of realizing the aforesaid advantage.

26. Regarding Claim 20, Mansgold further discloses a triple averaging detector (Fig. 2, reference 19) that corresponds to the signal analyzing claimed and a logic unit (Fig. 2, reference 21) that corresponds to the signal identification unit claimed (column 4, lines 9-14).

27. Regarding Claim 21, Brillhart further discloses the input unit designed for manual key input (Fig. 1, reference 20).

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28. Regarding Claim 23, Brillhart further discloses transmission by the remote control that corresponds to the input device claimed using infrared radiation (i.e., wirelessly) (Fig. 2, reference 60, 15; column 4, lines 59-63).

29. Regarding Claim 25, Brillhart further discloses the remote control that corresponds to the input device claimed having two buttons (Fig. 1, reference 24; column 4, lines 49-53) each for a user input to adjust a parameter in one of two opposite directions.

30. Claims 6, 10, 19, 21/19, 23/19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brillhart in view of Mansgold and further in view of Topholm (US Patent 4,947,432).

31. Regarding Claim 6, as shown above apropos of Claim 5, the combination of Brillhart and Mansgold makes obvious all elements except selection between better understanding and more pleasant hearing. Topholm discloses a programmable hearing aid with selection between music listening (i.e., more pleasant) and in a car (i.e., better understanding) (column 6, lines 24-27). Topholm further discloses this facility as “an essential advantage” (column 6, lines 22-23). It would have been obvious to one skilled in the art at the time of the invention to apply selection between better understanding and more pleasant hearing as taught by Topholm to the combination made obvious by Brillhart and Mansgold for the purpose of realizing the aforesaid advantages.

32. Regarding Claim 10, Brillhart further discloses the modified volume settings saved with other parameters in a shift register of the hearing aid (Fig. 3, reference 114; column 7, lines 16-23).

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33. Regarding Claim 19, as shown above apropos of Claim 17 the combination of Brillhart and Mansgold makes obvious all elements except selection between better understanding and more pleasant hearing. Topholm discloses a programmable hearing aid with selection between music listening (i.e., more pleasant) and in a car (i.e., better understanding) (column 6, lines 24-27). Topholm further discloses this facility as “an essential advantage” (column 6, lines 22-23). It would have been obvious to one skilled in the art at the time of the invention to apply selection between better understanding and more pleasant hearing as taught by Topholm to the combination made obvious by Brillhart and Mansgold for the purpose of realizing the aforesaid advantages.

34. Regarding Claim 21, Brillhart further discloses the input unit designed for manual key input (Fig. 1, reference 20).

35. Regarding Claim 23, Brillhart further discloses transmission by the remote control that corresponds to the input device claimed using infrared radiation (i.e., wirelessly) (Fig. 2, reference 60, 15; column 4, lines 59-63).

36. Claim 11/7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brillhart in view of Meyer (US Patent 5,604,812).

37. Regarding Claim 11, as shown above apropos of Claim 7, Brillhart anticipates all elements except replacing a parameter changed by the user several times. Meyer discloses a programmable hearing aid with automatic adaptation to auditory conditions that: identifies the current ambient/auditory situation (i.e., a momentary acoustic surround situation) (column 4, lines 57-60) and transmitting (i.e., saving) control parameters 17 defining transmission

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characteristics to the amplifier and transmission circuit 4 based on user inputs (column 5, lines 5-8) and incorporation of those user inputs into a rule set using fuzzy logic (column 3, lines 60-63). As such, consistent user correction results in incorporation of that correction into the rules for automatic selection. One skilled in the art would have known that such an arrangement provides convenience to the user. It would have been obvious to one skilled in the art at the time of the invention to apply incorporation of user inputs as taught by Meyer to the hearing aid taught by Brillhart for the purpose of realizing the aforesaid advantage.

38. Claims 11/ 8 and 11/9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brillhart in view of Mansgold and further in view of Meyer.

39. Regarding Claim 11, as shown above apropos of Claims 8 and 9, the combination of Brillhart and Mansgold makes obvious all elements except replacing a parameter changed by the user several times. Meyer discloses a programmable hearing aid with automatic adaptation to auditory conditions that: identifies the current ambient/auditory situation (i.e., a momentary acoustic surround situation) (column 4, lines 57-60) and transmitting (i.e., saving) control parameters 17 defining transmission characteristics to the amplifier and transmission circuit 4 based on user inputs (column 5, lines 5-8) and incorporation of those user inputs into a rule set using fuzzy logic (column 3, lines 60-63). As such, consistent user correction results in incorporation of that correction into the rules for automatic selection. One skilled in the art would have known that such an arrangement provides convenience to the user. It would have been obvious to one skilled in the art at the time of the invention to apply incorporation of user

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inputs as taught by Meyer to the combination made obvious by Brillhart and Mangold for the purpose of realizing the aforesaid advantage.

40. Claim 11/10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brillhart in view of Mangold and further in view of Topholm and further in view of Meyer.

Regarding Claim 11, as shown above apropos of Claim 10, the combination of Brillhart, Mangold and Topholm makes obvious all elements except replacing a parameter changed by the user several times. Meyer discloses a programmable hearing aid with automatic adaptation to auditory conditions that: identifies the current ambient/auditory situation (i.e., a momentary acoustic surround situation) (column 4, lines 57-60) and transmitting (i.e., saving) control parameters 17 defining transmission characteristics to the amplifier and transmission circuit 4 based on user inputs (column 5, lines 5-8) and incorporation of those user inputs into a rule set using fuzzy logic (column 3, lines 60-63). As such, consistent user correction results in incorporation of that correction into the rules for automatic selection. One skilled in the art would have known that such an arrangement provides convenience to the user. It would have been obvious to one skilled in the art at the time of the invention to apply incorporation of user inputs as taught by Meyer to the combination made obvious by Brillhart, Mangold and Topholm for the purpose of realizing the aforesaid advantage.

41. Claims 18, 21/18, 23/18, 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brillhart in view of Topholm.

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42. Regarding Claims 18, as shown above apropos of Claim 15, Brillhart anticipates all elements except selection between better understanding and more pleasant hearing. Topholm discloses a programmable hearing aid with selection between music listening (i.e., more pleasant) and in a car (i.e., better understanding) (column 6, lines 24-27). Topholm further discloses this facility as “an essential advantage” (column 6, lines 22-23). It would have been obvious to one skilled in the art at the time of the invention to apply selection between better understanding and more pleasant hearing as taught by Topholm to the hearing aid taught by Brillhart for the purpose of realizing the aforesaid advantages.

43. Regarding Claim 21, Brillhart further discloses the input unit designed for manual key input (Fig. 1, reference 20).

44. Regarding Claim 23, Brillhart further discloses transmission by the remote control that corresponds to the input device claimed using infrared radiation (i.e., wirelessly) (Fig. 2, reference 60, 15; column 4, lines 59-63).

45. Regarding Claim 26, Brillhart discloses a remote control that corresponds to the input device claimed (Fig. 1, reference 24; Fig. 2; column 4, lines 59-63). Therefore, Brillhart anticipates all elements except selection between better understanding and more pleasant hearing. Topholm discloses a programmable hearing aid with selection between music listening (i.e., more pleasant) and in a car (i.e., better understanding) (column 6, lines 24-27). Topholm further discloses this facility as “an essential advantage” (column 6, lines 22-23). It would have been obvious to one skilled in the art at the time of the invention to apply selection between better understanding and more pleasant hearing as taught by Topholm to the remote control taught by Brillhart for the purpose of realizing the aforesaid advantages.

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46. Regarding Claim 27, Brillhart further discloses transmission by the remote control that corresponds to the input device claimed using infrared radiation (i.e., wirelessly) (Fig. 2, reference 60, 15; column 4, lines 59-63).

47. Claims 22/15 and 24/15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brillhart in view of Sauer (US Patent 5,636,285).

48. Regarding Claim 22, as shown above apropos of Claim 15, Brillhart anticipates all elements except speech controlled input. Sauer discloses a voice controlled hearing aid (Figs. 1-3; column 1, lines 59-65). Sauer further discloses that such an arrangement improves user convenience by obviating the need to carry a separate control device (column 1, lines 53-58). It would have been obvious to one skilled in the art at the time of the invention to apply speech control as taught by Sauer to the hearing aid taught by Brillhart for the purpose of realizing the aforesaid advantage.

49. Regarding Claim 24, as shown above apropos of Claim 15, Brillhart anticipates all elements except the integrated input device. Sauer discloses a voice controlled hearing aid (Figs. 1-3; column 1, lines 59-65) that integrates a voice decoder analyzer and microprocessor memory configuration (Figs. 1-3, reference 4-6) that corresponds to the input device claimed. Sauer further discloses that such an arrangement improves user convenience by obviating the need to carry a separate control device (column 1, lines 53-58). It would have been obvious to one skilled in the art at the time of the invention to apply speech control as taught by Sauer to the hearing aid taught by Brillhart for the purpose of realizing the aforesaid advantage.

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50. Claims 22/16, 24/16, 22/17, 24/17, 22/20 and 24/20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brillhart in view of Mansgold and further in view of Sauer.

51. Regarding Claim 22, as shown above apropos of Claims 16, 17 and 20, the combination of Brillhart and Mansgold makes obvious all elements except speech controlled input. Sauer discloses a voice controlled hearing aid (Figs. 1-3; column 1, lines 59-65). Sauer further discloses that such an arrangement improves user convenience by obviating the need to carry a separate control device (column 1, lines 53-58). It would have been obvious to one skilled in the art at the time of the invention to apply speech control as taught by Sauer to the combination made obvious by Brillhart and Mansgold for the purpose of realizing the aforesaid advantage.

52. Regarding Claim 24, as shown above apropos of Claims 16, 17 and 20, the combination of Brillhart and Mansgold makes obvious all elements except the integrated input device. Sauer discloses a voice controlled hearing aid (Figs. 1-3; column 1, lines 59-65) that integrates a voice decoder analyzer and microprocessor memory configuration (Figs. 1-3, reference 4-6) that corresponds to the input device claimed. Sauer further discloses that such an arrangement improves user convenience by obviating the need to carry a separate control device (column 1, lines 53-58). It would have been obvious to one skilled in the art at the time of the invention to apply speech control as taught by Sauer to the combination made obvious by Brillhart and Mansgold for the purpose of realizing the aforesaid advantage.

53. Claims 22/18 and 24/18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brillhart in view of Topholm and further in view of Sauer.



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54. Regarding Claim 22, as shown above apropos of Claim 18, the combination of Brillhart and Topholm makes obvious all elements except speech controlled input. Sauer discloses a voice controlled hearing aid (Figs. 1-3; column 1, lines 59-65). Sauer further discloses that such an arrangement improves user convenience by obviating the need to carry a separate control device (column 1, lines 53-58). It would have been obvious to one skilled in the art at the time of the invention to apply speech control as taught by Sauer to the combination made obvious by Brillhart and Topholm for the purpose of realizing the aforesaid advantage.

55. Regarding Claim 24, as shown above apropos of Claim 18, the combination of Brillhart and Topholm makes obvious all elements except the integrated input device. Sauer discloses a voice controlled hearing aid (Figs. 1-3; column 1, lines 59-65) that integrates a voice decoder analyzer and microprocessor memory configuration (Figs. 1-3, reference 4-6) that corresponds to the input device claimed. Sauer further discloses that such an arrangement improves user convenience by obviating the need to carry a separate control device (column 1, lines 53-58). It would have been obvious to one skilled in the art at the time of the invention to apply speech control as taught by Sauer to the combination made obvious by Brillhart and Topholm for the purpose of realizing the aforesaid advantage.

56. Claims 22/20 and 24/20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brillhart in view of Mansgold and further in view of Sauer.

57. Regarding Claim 22, as shown above apropos of Claim 20, the combination of Brillhart and Mansgold makes obvious all elements except speech controlled input. Sauer discloses a voice controlled hearing aid (Figs. 1-3; column 1, lines 59-65). Sauer further discloses that such

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an arrangement improves user convenience by obviating the need to carry a separate control device (column 1, lines 53-58). It would have been obvious to one skilled in the art at the time of the invention to apply speech control as taught by Sauer to the combination made obvious by Brillhart and Mansgold for the purpose of realizing the aforesaid advantage.

58. Regarding Claim 24, as shown above apropos of Claim 20, the combination of Brillhart and Mansgold makes obvious all elements except the integrated input device. Sauer discloses a voice controlled hearing aid (Figs. 1-3; column 1, lines 59-65) that integrates a voice decoder analyzer and microprocessor memory configuration (Figs. 1-3, reference 4-6) that corresponds to the input device claimed. Sauer further discloses that such an arrangement improves user convenience by obviating the need to carry a separate control device (column 1, lines 53-58). It would have been obvious to one skilled in the art at the time of the invention to apply speech control as taught by Sauer to the combination made obvious by Brillhart and Mansgold for the purpose of realizing the aforesaid advantage.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Swerdlow whose telephone number is 571-272-7531. The examiner can normally be reached on Monday through Friday between 7:30 AM and 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh H. Tran can be reached on 571-272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Daniel Swerdlow".

Daniel Swerdlow  
Examiner  
Art Unit 2646

ds

8 March 2006